California State Lands Commission

PART III – REVISIONS TO DRAFT EIR

Final Environmental Impact Report for the Tesoro Amorco Marine Oil Terminal Lease Consideration, February 2014

THIS PAGE IS INTENDED TO BE LEFT BLANK

INTRODUCTION

1

- 2 Tesoro Refining and Marketing Company, LLC (Tesoro) is the owner and operator of
- 3 the Amorco Marine Oil Terminal (Amorco Terminal), a tanker and barge petroleum
- 4 unloading facility, and associated Golden Eagle Refinery (Refinery), located in Contra
- 5 Costa County (see Figure ES-1). The Amorco Terminal and Refinery have operated at
- 6 their current locations since approximately 1923 and 1913, respectively. The Amorco
- 7 Terminal is on sovereign public land leased from the California State Lands
- 8 Commission (CSLC), with upland storage facilities located on private land. The CSLC is
- 9 considering an application for a new 30-year lease of sovereign lands to Tesoro for the
- 10 Amorco Terminal, otherwise known as the Amorco Marine Oil Terminal Lease
- 11 Consideration Project (Project). Since 2008, the CSLC has considered the current lease
- agreement, Lease PRC 3453.1, to be in a "holdover" status (i.e., the Amorco Terminal
- 13 continues to operate under the terms of its existing lease while a decision on a new
- lease is pending). The issuance of a new 30-year lease, if granted, would allow Tesoro
- to continue to operate its Amorco Terminal through 2043.
- 16 The CSLC is serving as the lead agency responsible for preparing this Environmental
- 17 Impact Report (EIR) in compliance with the California Environmental Quality Act
- 18 (CEQA) to analyze the environmental impacts associated with operation of the Amorco
- 19 Terminal. Particular emphasis will be placed on oil transfer operations at the Amorco
- 20 Terminal, and vessel transit along shipping routes within Carguinez Strait, San Pablo
- 21 and San Francisco Bays, and along the outer coast. This EIR will provide the CSLC the
- 22 information required to exercise its jurisdictional responsibilities for the proposed new
- 23 lease.

24 PROJECT OBJECTIVE

- 25 The Applicant has identified the following basic objective for the Project:
- To obtain a CSLC lease to continue operations at, and maintain the level of crude oil
- 27 feedstock imported through, the existing Amorco Terminal, thereby maintaining the
- operation and viability of Tesoro's associated Golden Eagle Refinery.

29 ORGANIZATION OF THE EIR

- 30 The EIR contains the following sections:
- **Section 1.0 Introduction** includes a general overview of the proposed project, the environmental review process, and purpose and scope of the EIR;

3

4

5 6

7

8

9

10

11

12

13

14

15 16

17

18

19

20

21

22

23

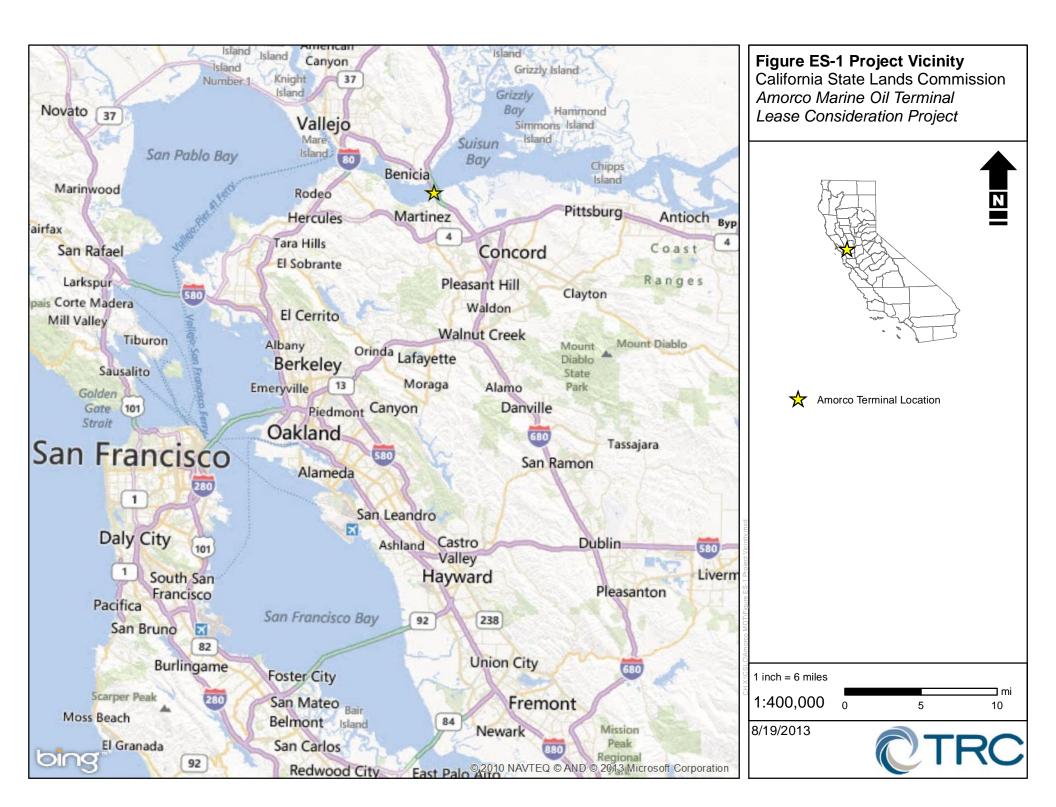
24

25

- Section 2.0 Project Description describes the proposed Project, its location 1 2 and facilities, an overview of its operation, and schedule;
 - Section 3.0 Alternatives and Cumulative Projects describes the alternatives to the Project carried forward for analysis, the alternatives that were considered but eliminated from detailed evaluation, and those projects considered during the evaluation of cumulative impacts to the Project;
 - Section 4.0 -**Environmental Impact Analysis** describes environmental conditions within issue areas, Project-specific impacts and associated mitigation measures, and includes impact analysis of Project alternatives and cumulative impacts;
 - Section 5.0 Other Required CEQA Sections addresses other required CEQA elements, including evaluation of growth-inducing impacts of the Project;
 - Section 6.0 Commercial and Sport Fisheries addresses impacts to these resources:
 - Section 7.0 Socioeconomics and Environmental Justice describes existing conditions and Project-related effects related to socioeconomics and environmental justice;
 - Section 8.0 Mitigation Monitoring and Reporting Program summarizes all Applicant-proposed measures and recommended mitigation measures identified to avoid or reduce significant impacts, the party(ies) responsible for tracking each mitigation measure, and how compliance with the measure will be reported; and
 - Section 9.0 List of Preparers and References presents information on the individuals who prepared the EIR and their qualifications and list of reference materials used to prepare the report.

PROPOSED PROJECT

- 26 The Amorco Terminal operates as an import-only facility for crude oil and currently
- consists of approximately 16.6 acres of State-owned sovereign land leased from the 27
- 28 CSLC, which will be reduced to 14.9 acres under the new 30-year lease proposed as 29
- part of the Project. The Amorco Terminal supports the Refinery, located 2.5 miles east,
- and is capable of operating 365 days a year, 24 hours a day, although actual operation 30
- 31 depends on shipping demands.
- 32 The Amorco Terminal is a single-berth docking facility, consisting of marine timbers and
- 33 concrete. The main wharf, approximately 1,130 feet long by 150 feet wide, supports
- 34 associated unloading equipment, including pumps, pipelines, electrical utilities, fire
- 35 protection equipment, spill response equipment, and other ancillary mechanical
- 36 equipment. Access to the Amorco Terminal from the onshore Amorco Tank Farm is
- provided by an approximately 28-foot-wide by 1,500-foot-long approach trestle. 37



THIS PAGE IS INTENDED TO BE LEFT BLANK

- The Amorco Terminal is currently authorized to accommodate up to 190,000 deadweight ton (DWT) vessels with displacements up to 200,000 DWTs. Vessel traffic and throughput volumes at the Amorco Terminal are summarized below.
 - Annual ship and barge traffic currently averages 69 vessels per year (between 2008 and 2012). Amorco Terminal throughput ranges from 16,900,000 barrels per year (bpy) to an anticipated maximum of 26,800,000 bpy.
 - Future estimates are 60 to 90 vessels per year. Future Amorco Terminal throughput estimates range from 20 million bpy to an anticipated maximum of 30 million bpy.
 - The maximum capacity that the Amorco Terminal could handle is 63,875 70,080 million bpy. Maximum throughput is based on Tesoro's Bay Area Air Quality Management District Title V Permit to Operate for the Refinery.
- 13 Therefore, Section 4.0, Environmental Impact Analysis is based on the anticipated
- 14 future estimates provided above. Other than reducing the acreage of land leased from
- 15 approximately 16.6 acres to 14.9 acres, Tesoro has no existing plans to modify the
- 16 Amorco Terminal over the 30-year term of the proposed lease.

17 ALTERNATIVES TO THE PROPOSED PROJECT

- 18 The CEQA requires consideration of a range of reasonable alternatives to the project or
- 19 project location that: (1) could feasibly attain most of the basic project objectives; and
- 20 (2) would avoid or substantially lessen any of the significant impacts of the proposed
- 21 project. The following is a summary of alternatives analyzed in this EIR. For more detail,
- see Section 3.0, Alternatives and Cumulative Projects.

23 No Project

4

5

6

7

8

9

10 11

- 24 Under the No Project Alternative, the Amorco Terminal lease would not be renewed,
- 25 and the existing Amorco Terminal would be subsequently decommissioned. Tesoro may
- 26 choose to pursue transitioning the Avon Marine Oil Terminal (currently an export-only
- 27 marine oil terminal located in Martinez, California) to absorb all import operations from
- 28 the Amorco Terminal, thereby increasing the throughput at the Avon Marine Oil
- 29 Terminal to the Golden Eagle Refinery to meet regional refining demands.¹
- 30 In addition, Tesoro may consider alternative means of traditional crude oil transportation
- 31 to absorb import operations from the Amorco Terminal. Sources may include land-

While currently an export-only marine oil terminal, Tesoro's Avon Marine Oil Terminal is capable of operating as both an import and export facility, provided that the wharf is upgraded and expanded to meet the current throughput capacities for the Avon and Amorco Terminals. The Avon Marine Oil Terminal is currently subject to CEQA evaluation by the CSLC for a new 30-year lease of sovereign land to continue the Refinery's exporting operations through the Avon Terminal.

- 1 based transportation such as rail cars and trucks, and/or pipeline connections to other
- 2 Bay Area terminals, or a combination thereof. Pipeline delivery may require construction
- 3 of new pipelines and/or the purchase of existing pipeline capacity from other local
- 4 petroleum refinery competitors. While the CSLC may have no jurisdiction over any of
- 5 these land-based forms of transportation (except for pipeline or road and railway
- 6 construction underneath and/or across waterbodies under CSLC jurisdiction),
- 7 construction and operation of facilities would be subject to substantial environmental
- 8 review and permitting by other local and state agencies.

9 Restricted Lease Taking Amorco Terminal Out of Service for Oil Transport

- 10 Under this alternative, Tesoro's Amorco Terminal lease would be renewed with
- 11 modification to restrict its allowed use such that the existing Terminal would be: left in
- 12 place, taken out of service and placed into caretaker status for any petroleum product
- 13 transfer, and not decommissioned or demolished. No environmental impacts would be
- 14 associated with these activities. Because the structure of the Amorco Terminal would
- remain in place, Tesoro would retain the option to apply to bring it back into service for
- oil transport at some time in the future, should the need arise. Any future change in use
- 17 of the Amorco Terminal would require a lease action and potential separate CEQA
- 18 review by the CSLC. Alternative uses for the Amorco Terminal could include:
 - use of the Amorco Terminal as a staging area for dredging operations, maintenance and upgrades to other terminals, or training exercises;
 - the option for Tesoro to bring the Amorco Terminal back into service as a fully operational petroleum product transfer facility; or
 - sale of the Amorco Terminal to another entity for the above, or for other uses.
- 24 As with the No Project Alternative, Tesoro might absorb import operations from the
- 25 Amorco Terminal by transitioning the Avon Marine Oil Terminal to import and export
- 26 operations or consider alternative means of traditional crude oil transportation such as a
- 27 pipeline and/or rail transportation, or use some combination of the these sources

ENVIRONMENTAL IMPACTS AND MITIGATION

- 29 This EIR includes a detailed evaluation of the potentially significant environmental
- 30 effects that could result from implementation of the Project on a variety of resource
- 31 topics, including: operational safety/risk of accidents; biological resources, air quality
- and greenhouse gas emissions; geology, soils, and seismicity; cultural resources; land-
- 33 based transportation; land use and recreation; noise; and visual resources, light, and
- 34 glare. Table ES-1 presents a summary of potential impacts and mitigation measures for
- 35 the proposed Project.

19

20

21

22

23

Table ES-1: Summary of Environmental Impacts and Mitigation Measures for the Proposed Project

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
Section 4.1 Operational Safety/R OS-1: Potential for spills and response capability for containment of oil spills from the Amorco Terminal during transfer operations	isk of Ac	 MM OS-1a: Remote Release Systems. MM OS-1b: Tension Monitoring Systems. MM OS-1c: Allision Avoidance Systems.
OS-2: Amorco Terminal spills from pipelines during non-transfer periods	SU	No additional mitigation measures available. (Refer to MMs OS-1a, OS-1b, OS1c, OS4a, and OS-4b.)
OS-3: Potential for fires and explosions and response capability	SU	 MM OS-3a: Remote Release Systems. (Refer to MM OS-1a.) MM OS-3b: Fire Protection Assessment.
OS-4: Response capability for accidents in the San Francisco Bay, and outer coast	SU	 MM OS-4a: USCG Ports and Waterways Safety Assessment workshops. MM OS-4b: Spill response to vessel spills.
CUM-OS-1: Upset Conditions	SU	 No additional mitigation measures available (refer to MMs OS-1a, OS-1b, OS1c, OS4a, and OS-4b.)
Section 4.2 Biological Resources	s (BIO)	
BIO-1: Increase deposition or erosion of sensitive habitats along the vessel path, including marshlands within and adjacent to the lease area, resulting from the resuspension of sediments by calling vessels	LTS	No mitigation required.
BIO-2: Cause substantial impact to special-status wildlife species, including impact to behavior and the composition of biotic communities, in the vicinity of the Amorco Terminal as a result of the use of bright lights during nighttime Amorco Terminal operations	LTS	No mitigation required.
BIO-3: Cause substantial direct and/or indirect impacts on aquatic biota through the changing of physical and chemical environmental factors as a result of maintenance dredging	LTS	No mitigation required.

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
BIO-4: Cause injury or behavioral interruptions to aquatic species as a result of noise from vessels	LTS	No mitigation required.
BIO-5: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of minor fuel, lubricant, and/or boat-related spills	LTS	No mitigation required.
BIO-6: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of major fuel, lubricant, and/or boat-related spills	SU	 MM BIO-6a: Bird rescue personnel and rehabilitators. MM BIO-6b: Cleanup of oil from biological area. MM BIO-6c: Natural Resource Damage Assessment Team.
BIO-7: Introduce invasive nonindigenous species to the San Francisco Bay Estuary	SU	 MM BIO-7a: Marine Invasive Species Act Reporting Forms. MM BIO-7b: Invasive species action funding.
cum-bio-1: Cause cumulative adverse impacts to special status species, biotic communities, and habitat through vessel resuspension of sediment, use of bright night time lights, routine dredging, shipping noise, and potential minor oil spills as a result of Amorco Terminal operations	LTS	No mitigation required.
CUM-BIO-2: Cause cumulative impacts to San Francisco Bay Estuary and associated biota from oil spills from all marine oil terminals combined, or from all tankering combined	SU	MM CUM-BIO-2a: Tesoro shall implement MM BIO-6a through BIO-6c.
CUM-BIO-3: Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay	SU	MM CUM-BIO-3a: Tesoro shall implement MM BIO-7a and BIO-7b.
CUM-BIO-4: Cause cumulative impacts to the biota of the San Francisco Bay Estuary resulting from degradation of water quality from vessels visiting the Amorco Terminal that are coated with antifouling paints	LTS	No mitigation required.

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
Section 4.3 Water Quality (WQ)		
WQ-1: Degrade water quality as a result of maintenance dredging	LTS	No mitigation required.
WQ-2: Degrade water quality as a result of sediment disturbance from vessel maneuvers	LTS	No mitigation required.
WQ-3: Degrade water quality by the discharge of ballast water	SU	 MM WQ-3: Advise vessels of applicable regulations and standards.
WQ-4: Degrade water quality as a result of discharge of cooling water, sanitary wastewater, bilge water, or other liquid wastes	LTS	No mitigation required.
WQ-5: Degrade water quality as a result of vessel biofouling	SU	 MM WQ-5: Advise vessels of applicable regulations and standards. (Also refer to MM BIO-7a).
WQ-6: Degrade water quality due to anti-fouling paints used on vessel hulls	SU	MM WQ-6: Inform Vessels calling at the Amorco Terminal of the ban on TBT.
WQ-7: Degrade water quality as a result of cathodic protection on vessels	LTS	No mitigation required.
WQ-8: Degrade water quality as a result of stormwater runoff from the wharf	PS	MM WQ-8: Amend existing SWPPP.
WQ-9: Degrade water quality as a result of oil leaks and spills during unloading	SU	No additional mitigation measures available. (Refer to MMs OS-1a, 1b, and 1c .)
WQ-10: Degrade water quality due to releases from vessels in transit in the San Francisco Bay or along the outer coast	SU	No additional mitigation measures available. (Refer to MMs OS-4a and OS-4b.)
CUM WQ-1: Cause contaminant impacts on San Francisco Bay water quality	SU	No additional mitigation measures available. (Refer to MMs WQ-3, WQ-5 and WQ-6.)
CUM WQ-2: Cause resuspension of sediment	LTS	No mitigation required.
CUM WQ-3: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay or along the outer coast	SU	No mitigation measures available. (Refer to MMs OS-1a, 1b, and 1c .)

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
Section 4.4 Air Quality and Green	nhouse (Gas Emissions (AQ)
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan, permit, or standard, or create an air quality violation.	LTS	No mitigation required.
AQ-2: Result in a considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, including releasing emissions that exceed quantitative thresholds for ozone precursors.	LTS	No mitigation required.
AQ-3: Expose sensitive receptors to substantial pollutant concentrations.	LTS	No mitigation required.
AQ-4: Create objectionable odors affecting a substantial number of people.	LTS	No mitigation required.
GHG-1: Generate GHG emissions, either directly or indirectly, that conflict with an applicable plan, policy, or regulation adopted for the purposes of GHG reduction.	LTS	No mitigation required.
Section 4.5 Geology, Sediments,	and Sei	smicity (GSS)
GSS-1: Expose people or structures to surface faulting and ground rupture, resulting in substantial structural damage and risk of injury or loss of life.	LTS	No mitigation required.
GSS-2: Expose people or structures to strong ground shaking, slope instability, and/or seismically induced landslides causing substantial structural damage and risk of injury or loss of life.	LTS	No mitigation required.

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
GSS-3: Expose people or structures to liquefaction and seismically induced settlement causing substantial structural damage and risk of injury or loss of life.	LTS	No mitigation required.
GSS-4: Expose people or structures to the risk of loss, injury, or death as a result of tsunamis and/or seiches.	LTS	No mitigation required.
GSS-5: Cause Structural damage to the Amorco Terminal due to an Increase in Loading Conditions, Vessel Size, or Number of Vessels Calling.	LTS	No mitigation required.
Section 4.6 Cultural Resources (
CR-1: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	NI	No mitigation required.
Section 4.7 Land-based Transpo	rtation (I	_T)
LT-1: Generate project-related traffic that would cause LOS to drop below standards established by local jurisdictions; increase risk of accidents due to design elements of the project; generate significant parking demand; conflict with adopted policies, plans, or programs regarding land-based transportation; or substantially affect emergency response capabilities.	NI	No mitigation required.
Section 4.8 Land Use and Recrea	ation (LU	R)
LUR-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect	LTS	No mitigation required.

Impact	Impact Class ¹	Recommended Mitigation Measures (MMs)
LUR-2: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil at or near the Amorco Terminal	SU	No additional mitigation measures available. (Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.)
LUR-3: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil from vessels in transit	SU	No additional mitigation measures available. (Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.)
LUR-4: Conflict with established or proposed land uses, including potentially sensitive land uses	LTS	No mitigation required.
Section 4.9 Noise (NO)		
NO-1: Cause a violation of local noise ordinances or any other exceedance of applicable noise standards in regulations promulgated at the county, State, or federal level	LTS	No mitigation required.
Section 4.10 Visual Resources, L	ight and	I Glare (VR)
VR-1: Cause adverse impacts on a scenic vista or scenic highway	LTS	No mitigation required.
VR-2: Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (including views from land or water)	LTS	No mitigation required.
VR-3: Create visual effects from routine operations over the 30-year lease period	LTS	No mitigation required.
VR-4: Create visual effects from accidental releases of oil at or near the Amorco Terminal	SU	No additional mitigation measures available. (Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.)
VR-5: Create visual effects from oil spills from vessels in transit	SU	No additional mitigation measures available. (Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.)

 $^{^{1}}$ Impact Classes: SU = Significant and unavoidable; PS = Potentially significant that is reduced to less than significant with mitigation; LTS = Less than significant; NI = No impact; B = Beneficial impact

1 Summary of Major Potential Impacts of the Project

2 Potential impacts associated with small oil leaks and spills at the Amorco Terminal are 3 addressed in part through compliance with the CSLC's Marine Oil Terminal Engineering 4 and Maintenance Standards (MOTEMS), which became effective on February 6, 2006.² 5 The standards apply to all existing and new marine oil terminals in California, and 6 include criteria for inspection, structural analysis and design, mooring and berthing, 7 geotechnical considerations (a seismic and structural assessment, based on current 8 seismic criteria), and analysis and review of the fire, piping, mechanical, and electrical 9 systems. MOTEMS require each terminal operator (such as Tesoro) to conduct audits 10 and inspections to determine level of compliance and evaluate continuing fitness-for 11 purpose of the facility, and submit the results to the CSLC's Marine Facilities Division for 12 review and concurrence. Depending on the results, operators must then determine what 13 actions are required, and provide a schedule for implementation of deficiency 14 corrections and/or rehabilitation. The schedule must be mutually agreeable between the 15 CSLC and the terminal operator.

The Amorco Terminal is subject to MOTEMS, and Tesoro commenced its initial MOTEMS Audit in November 2007 (completed in March 2008). Subsequently, in December 2008, a Revision 1 Update of the initial MOTEMS Audit was commenced, and completed in February 2009. In June 2013, seismic upgrades to concrete breasting dolphins, the timber loading platform, and timber fire pump platform were completed. The MOTEMS Audit process includes inspections and condition assessments of the capacities of the existing wharf structure, fenders, and mooring devices. Future actions to comply with MOTEMS Audit findings may include physical changes to the Amorco Terminal and associated lease area. Depending on the nature and extent of any such changes, additional discretionary review by the CSLC Marine Facilities Division and/or Land Management Division may be required. MOTEMS are reviewed and updated every 3 years and all marine oil terminals must comply with the most recent version. Above-water inspections are due every 3 years, and underwater inspections are required every 3 to 6 years, depending on the results of the previous audit. For more information regarding MOTEMS requirements and Amorco Terminal compliance, see Section 2.0, Project Description.

Even with compliance with MOTEMS, moderate or large spills may originate from the Amorco Terminal due to natural factors (e.g., earthquake and/or tsunami), human error (e.g., berth collision and/or bad hose connection), or from a vessel moored at the Amorco Terminal or transiting the tanker lanes in the San Francisco Bay or along the outer coast. While the risk of moderate to large spills is small, the potential for impacts is significant for many environmental areas. The fate of spilled oil in the marine

16

17

18

19

20

21

22

23

24

25

26 27

28

29

30

31

32

33

34

35

36

² MOTEMS are codified in California Code of Regulations, Title 24, California Building Code, Chapter 31F—Marine Oil Terminals (Cal. Code Regs., tit. 24, § 3101F et seq.).

- 1 environment is determined by a variety of complex and interrelated physical, chemical,
- 2 and biological transformations. Moderate to severe oil spills can result in impacts to
- 3 water quality, biological resources, commercial and sport fisheries, shoreline land uses,
- 4 shoreline and water recreational uses, and visual quality of surface water and
- 5 shorelines. Project impacts and associated proposed mitigation measures are
- 6 presented in Table ES-1.
- 7 Significant adverse impacts can also occur from releases of toxic algae or other harmful
- 8 microorganisms in a vessel's ballast water. The introduction of invasive, non-native
- 9 species via ship's ballast water has severely disturbed the aquatic communities of San
- 10 Francisco Bay.

11

18

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES

- 12 The State CEQA Guidelines (§ 15126.6, subd. (d)) require that an EIR include sufficient
- 13 information about each alternative to allow meaningful evaluation, analysis, and
- 14 comparison with the proposed Project. A matrix displaying the major characteristics and
- 15 significant environmental effects of each alternative may be used to summarize the
- 16 comparison. Table ES-2 provides a comparison of the proposed project with each of the
- 17 alternatives evaluated in this document, including the No Project Alternative.

Environmentally Superior Alternative

19 State CEQA Guidelines section 15126.6, subdivision (e)(2) states:

The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. (Emphasis added.)

While the No Project Alternative eliminates impacts from the Amorco Terminal, implementation of the No Project Alternative would shift similar levels of impact to other Bay Area marine oil terminals that would make up the differential for crude oil and product transport throughout the San Francisco Bay. By eliminating impacts of Amorco Terminal operations at the Refinery, the No Project Alternative appears to be environmentally superior, but actually has significant impacts to the operational viability of the Refinery without a method of crude oil and product transport, and to the remaining marine oil terminals that would have to accept the product that is currently being delivered to the Amorco Terminal. Hence, the No Project Alternative would not

- 1 meet the Project objective of maintaining Refinery operational viability and would
- 2 potentially transfer similar direct impacts to other Bay Area marine oil terminals.
- 3 The Increased Crude Supplies from Non-marine Sources Restricted Lease Taking
- 4 Amorco Terminal Out of Service for Oil Transport Alternative would eliminate operations
- 5 and impacts at the Amorco Terminal. However, as described above, this Alternative
- 6 results in the transfer of similar direct impacts of the proposed Project to other Bay Area
- 7 marine oil terminals. Construction associated with new and existing pipelines and/or rail
- 8 and roadway related infrastructure would have the potential for significant and
- 9 unavoidable impacts associated with biological resources, water quality, land use, and
- 10 noise.
- 11 Under this alternative, the capacity of other marine terminals may be taxed, potentially
- 12 increasing vessel congestion and collisions (as well as the costs) while vessels wait to
- 13 berth and offload/load.
- 14 Because the Increased Crude Supplies from Non-marine Sources Restricted Lease
- 15 Taking Amorco Terminal Out of Service for Oil Transport Alternative moves impacts
- 16 from the Amorco Terminal to the locations of other marine oil terminals, and has the
- 17 added potential for land-based transportation-related spills, it represents a greater
- potential adverse environmental impact than the proposed Project.
- 19 The Increased Crude Supplies from Non-marine Sources Restricted Lease Taking
- 20 Amorco Terminal Out of Service for Oil Transport Alternative is the only alternative that
- 21 meets the Project objective of maintaining Refinery operational viability. This alternative
- 22 does not represent a greater environmental benefit than that of the proposed Project.
- 23 When only one alternative to the proposed Project is evaluated, identification of an
- 24 environmentally superior alternative is not required.
- 25 The comparison between the proposed Project and alternatives is presented in Table
- 26 ES-2.

27 KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

- 28 There are no known areas of controversy surrounding the Project. No objections to the
- 29 Project were raised during public scoping and no correspondence has been received
- 30 challenging the Project or its potential environmental effects.

Table ES-2: Summary of Environmental Impacts for Proposed Project and Alternatives

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
Section 4.1 Operational Safety/Risk of Accidents			
OS-1: Potential for spills and response capability for containment of oil spills from the Amorco Terminal during transfer operations	SU	N/A	N/A
OS-2: Amorco Terminal spills from pipelines during non-transfer periods	SU	N/A	N/A
OS-3: Potential for fires and explosions and response capability	SU	N/A	N/A
OS-4: Response capability for accidents in the San Francisco Bay and outer coast	SU	N/A	N/A
OS-5/OS-6: Risk of spills, fire, or explosion from displaced product transit	N/A	SU	SU
CUM-OS-1: Upset Conditions	SU	N/A	N/A
Section 4.2 Biological Resources			
BIO-1: Increase deposition or erosion of sensitive habitats along the vessel path, including marshlands within and adjacent to the lease area, resulting from the resuspension of sediments by calling vessels	LTS	N/A	N/A
BIO-2: Cause substantial impact to special-status wildlife species, including impact to behavior and the composition of biotic communities, in the vicinity of the Amorco Terminal as a result of the use of bright lights during nighttime operations	LTS	N/A	N/A
BIO-3: Cause substantial direct and/or indirect impacts on aquatic biota through the changing of physical and chemical environmental factors as a result of maintenance dredging	LTS	N/A	N/A
BIO-4: Cause injury or behavioral interruptions to aquatic species as a result of noise from vessels	LTS	N/A	N/A
BIO-5: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of minor fuel, lubricant, and/or boat-related spills	LTS	N/A	N/A

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
BIO-6: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of major fuel, lubricant, and/or boat-related spills	SU	N/A	N/A
BIO-7: Introduce invasive nonindigenous species to the San Francisco Bay Estuary	SU	N/A	N/A
BIO-8: Cause impacts to the San Francisco Bay Estuary and associated biota resulting from the decommissioning and abandoning in place of existing structures	N/A	SU	SU
BIO-9: Cause impacts to the San Francisco Bay Estuary and associated biota resulting from the partial or complete removal of Amorco Terminal structures	N/A	PS	PS
BIO-10: Cause impacts to the San Francisco Bay Region and associated biota by decommissioning and removing the Amorco Terminal and shifting crude oil imports to overland transport	N/A	SU	SU
BIO-11: Cause impacts to the San Francisco Bay Region and associated biota by shifting crude oil imports to overland transport	N/A	SU	SU
CUM-BIO-1: Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through vessel resuspension of sediment, use of bright night time lights, routine dredging, shipping noise, and potential minor oil spills as a result of Amorco Terminal operations	LTS	N/A	N/A
CUM-BIO-2: Cause cumulative impacts to San Francisco Bay Estuary and associated biota from oil spills from all marine oil terminals combined, or from all tankering combined	SU	N/A	N/A
CUM-BIO-3: Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay	SU	N/A	N/A
CUM-BIO-4: Cause cumulative impacts to the biota of the San Francisco Bay Estuary resulting from degradation of water quality from vessels visiting the Amorco Terminal that are coated with antifouling paints	LTS	N/A	N/A

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
Section 4.3 Water Quality			
WQ-1: Degrade water quality as a result of maintenance dredging	LTS	N/A	N/A
WQ-2: Degrade water quality as a result of sediment disturbance from vessel maneuvers	LTS	N/A	N/A
WQ-3: Degrade water quality by the discharge of ballast water	SU	N/A	N/A
WQ-4: Degrade water quality as a result of discharge of cooling water, sanitary wastewater, bilge water, or other liquid wastes	LTS	N/A	N/A
WQ-5: Degrade water quality as a result of vessel biofouling	SU	N/A	N/A
WQ-6: Degrade water quality due to anti-fouling paints used on vessel hulls	SU	N/A	N/A
WQ-7: Degrade water quality as a result of cathodic protection on vessels	LTS	N/A	N/A
WQ-8: Degrade water quality as a result of stormwater runoff from the wharf	PS	N/A	N/A
WQ-9: Degrade water quality as a result of oil leaks and spills during unloading	SU	N/A	N/A
WQ-10: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay or along the outer coast	SU	N/A	N/A
WQ-11: Degrade water quality during decommissioning of the Amorco Terminal	N/A	LTS	LTS
WQ-12/WQ-14: Degrade water quality due to accidental spills from rail cars, trucks, and/or pipelines	N/A	SU	SU
WQ-13/WQ-15: Degrade water quality due to stormwater runoff during construction	N/A	LTS	LTS
CUM WQ-1: Cause contaminant impacts on San Francisco Bay water quality	SU	N/A	N/A
CUM WQ-2: Cause re-suspension of sediment	LTS	N/A	N/A
CUM WQ-3: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay or along the outer coast	SU	N/A	N/A

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
Section 4.4 Air Quality and Greenhouse Gases			
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan, permit, or standard, or create an air quality violation	LTS	N/A	N/A
AQ-2: Result in a considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, including releasing emissions that exceed quantitative thresholds for ozone precursors	LTS	N/A	N/A
AQ-3: Expose sensitive receptors to substantial pollutant concentrations	LTS	N/A	N/A
AQ-4: Create objectionable odors affecting a substantial number of people	LTS	N/A	N/A
GHG-1: Generate GHG emissions, either directly or indirectly, that conflict with an applicable plan, policy, or regulation adopted for the purposes of GHG reduction	LTS	N/A	N/A
AQ-5: Create air quality impacts during decommissioning of the Amorco Terminal or by the transfer of operations to other Bay Area terminals	N/A	LTS	LTS
AQ-6/AQ-8: Impact air quality during construction or operation of rail facilities or additional trucking	N/A	LTS	LTS
AQ-7: Create air quality impacts by the transfer of operations to other Bay Area terminals.	N/A	LTS	LTS
Section 4.5 Geology, Sediments, and Seismicity			
GSS-1: Expose people or structures to surface faulting and ground rupture, resulting in substantial structural damage and risk of injury or loss of life	LTS	N/A	N/A
GSS-2: Expose people or structures to strong ground shaking, slope instability, and/or seismically induced landslides causing substantial structural damage and risk of injury or loss of life	LTS	N/A	N/A
GSS-3: Expose people or structures to liquefaction and seismically induced settlement causing substantial structural damage and risk of injury or loss of life	LTS	N/A	N/A

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
GSS-4: Expose people or structures to the risk of loss, injury, or death as a result of tsunamis and/or seiches	LTS	N/A	N/A
GSS-5: Cause structural damage to the Amorco Terminal due to an increase in loading conditions, vessel size, or number of vessels calling	LTS	N/A	N/A
GSS-6: Elimination of long-term potential for structural damage	N/A	В	В
GSS-7/GSS-9: Potential to cause substantial soil erosion, or to impact a known mineral resource	N/A	LTS	LTS
GSS-8/GSS-10: Potential to cause damage and/or failure to pipelines as a result of a seismic event	N/A	LTS	LTS
Section 4.6 Cultural Resources			
CR-1/CR-2/CR-3: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains	NI	PS	NI
Section 4.7 Land-based Transportation			
LT-1: Generate project-related traffic that would cause LOS to drop below standards established by local jurisdictions; increase risk of accidents due to design elements of the project; generate significant parking demand; conflict with adopted policies, plans, or programs regarding land-based transportation; or substantially affect emergency response capabilities	NI	N/A	N/A
LT-2: Generate project-related vehicular traffic resulting from the dismantling of existing structures	N/A	LTS	PS
LT-3/LT-4: Generate project-related traffic that would cause LOS to drop below standards established by local jurisdictions; increase risk of accidents due to design elements of the project; generate significant parking demand; conflict with adopted policies, plans, or programs regarding land-based transportation; or substantially affect emergency response capabilities	N/A	PS	PS

		Impact Class ¹	
Impact	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
Section 4.8 Land Use and Recreation			
LUR-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect	LTS	N/A	N/A
LUR-2: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil at or near the Amorco Terminal	SU	N/A	N/A
LUR-3: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil from vessels in transit	SU	N/A	N/A
LUR-4: Conflict with established or proposed land uses, including potentially sensitive land uses	LTS	N/A	N/A
LUR-5/LUR-7: Cause residual impacts on sensitive shoreline lands and/or water recreation due to an accidental release of oil from marine-based sources; or conflict with established or proposed land uses, including potentially sensitive land uses	N/A	В	В
LUR-6/LUR-8: Cause residual impacts on sensitive lands and/or recreation due to an accidental release of oil imported from non-marine sources; or conflict with established or proposed land uses, including potentially sensitive land uses Section 4.9 Noise	N/A	SU	SU
NO-1: Cause a violation of local noise ordinances or any other exceedance of applicable noise standards in regulations promulgated at the county, State, or federal level	LTS	N/A	N/A
NO-2: Effects on noise with no new Amorco Terminal lease	N/A	LTS	LTS
NO-3: Effects on noise by importing crude supplies from non-marine sources	N/A	PS	PS
NO-4: Effects on noise by taking Amorco Terminal out of service for oil transport	N/A	N/A	В

Impact	Impact Class ¹		
	Proposed Project	No Project	Restricted Lease Taking Amorco Out of Service for Oil Transport
Section 4.10 Visual Resources, Light, and Glare			
VR-1: Cause adverse impacts on a scenic vista or scenic highway	LTS	N/A	N/A
VR-2: Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (including views from land or water)	LTS	N/A	N/A
VR-3: Create visual effects from routine operations over the 30-year lease period	LTS	N/A	N/A
VR-4: Create visual effects from accidental releases of oil at or near the Amorco Terminal	SU	N/A	N/A
VR-5: Create visual effects from oil spills from vessels in transit	SU	N/A	N/A
VR-6: Effects on visual resources with no new Amorco Terminal lease	N/A	В	В
VR-7: Effects on visual resources by taking Amorco Terminal out of service for oil transport	N/A	N/A	LTS

¹Impact Classes:

SU = Significant and unavoidable

PS = Potentially significant that is reduced to less than significant with mitigation

LTS = Less than significant

NI = No impact

B= Beneficial Impact

N/A = Not Applicable; defined in this case as either lack of relevance to the defined alternative, or because a given impact would be evaluated as part of a separate CEQA evaluation, as applicable, as discussed in the EIR.